



Michael O. Leavitt  
Governor  
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Executive Director  
James W. Carter  
Division Director

# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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June 7, 1993

TO: Board of Oil, Gas and Mining

THRU: James W. Carter, Director *JWC*

THRU: Wayne Hedberg, Permit Supervisor *WH*

FROM: Holland Shepherd, Senior Reclamation Specialist *HS*

RE: Request for Board Approval, Form and Amount of Reclamation Surety, ECDC Clay Project, ECDC-Environmental, M/015/062, Emery County, Utah

The Division is requesting Board approval of the form and amount of surety submitted by ECDC-Environmental for the ECDC Clay Project, in Emery County. The new operator (ECDC) has provided the Division with a \$20,600 surety bond which covers 18 acres of proposed disturbance.

The ECDC notice covers essentially the same general area as the Pagano Clay project, which was operated by the Jay Pagano Estate. However, the new ECDC disturbance will not exactly duplicate all of the existing Pagano Clay reclaimed disturbance.

The \$20,600 surety estimate has been calculated to cover all proposed and existing disturbance(s) as outlined for the ECDC and the Pagano Clay Project sites. The Pagano Clay Estate has also submitted a \$3,700 to cover the remaining reclamation work at the site. This surety will remain in effect until those areas not impacted by the ECDC Clay Project have been reclaimed and meet the revegetation release criteria.

Public notice for the ECDC Clay Project, which must run for 30 days, was initiated on May 29, 1993. Expiration of public notice should fall on June 28, 1993.

Please find the following attachments for your reference:

1. Summary Checklist
2. Executive Summary
3. Location Maps
4. Reclamation Contract
5. Surety Bond

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Attachments



# RECLAMATION ESTIMATE

East Carbon Development Company(ECDC)

file M15-62.WQ1

ECDC Clay Mine

last revision

03/03/93

M/015/062

Emery County

Prepared by Utah State Division of Oil, Gas & Mining

## Reclamation Details

- Post-mine land use is wildlife grazing and wildlife habitat
- All structures & equipment to be removed from the site
- Facilities/equipment: crusher, loader, dozer, blade, water truck, scrapers
- All compacted areas (loadouts, stockpile pads) to be ripped
- All trash and debris removed from site; no burning or burial onsite
- All highwalls/slopes regraded to 2h:1v or less
- All post-law roads to be regraded & ripped
- No topsoil was salvaged; little topsoil exists at site
- Entire disturbed area to be drill seeded, fertilized, mulched
- Disturbed area includes mining sites, new roads & facilities
- Individual acreages used below were taken from the LMO-NOI form
- Estimated total disturbed acreage = 18.0 acre

Activity	Amount	\$/unit	\$
Rip facility areas(0.5mph)	0.5 acre	463	232
Rip new roads (0.5mph)	1.5 acre	463	695
Regrade mine areas(1.0ft)	16 acre	327	5,232
Regrade facilities & roads	2 acre	327	654
Re-establish drainage channel	1,000 LF	0.50	500
Remove trash & debris	18 acre	50	900
Drillseed, fertilize, mulch	18 acre	400	7,200
Mobilization	2 equip	1,000	2,000
	Subtotal		17,412
	Add 10% contingency		1,741
	1993-\$ Subtotal		19,153
	Add 5 yr escalation at 1.42%		1,399
	Total 1998-\$		20,552
Rounded Total in 1998-\$			\$20,600
Average cost per acre =			\$1,144

## EXECUTIVE SUMMARY

Prepared June 7, 1993

<b>Mine Name:</b> <u>ECDC Clay Project</u>	<b>I.D. No:</b> <u>M/015/062</u>
<b>Operator:</b> <u>ECDC-Environmental</u>	<b>County:</b> <u>Emery</u>
<u>1111 West Highway 123, P. O. Box 69</u>	<b>New/Existing:</b> <u>Existing</u>
<u>East Carbon, Utah 84520</u>	<b>Mineral Ownership:</b> <u>Private</u>
	<b>Surface Ownership:</b> <u>Private</u>
<b>Telephone:</b> <u>801/888-4451</u>	<b>Lease No.(s):</b> <u>none</u>
<b>Contact Person:</b> <u>Gary Nielson</u>	<b>Permit Term:</b> <u>life of Mine</u>

**Life of Mine:** two years

**Legal Description:** NE 1/4, NW 1/4 and NW 1/4, NE 1/4, Section 1, Township 16 South,  
Range 11 East and SE 1/4, Section 36, Township 15 South, Range 11 East

**Mineral(s) to be Mined:** Bentonite Clay

**Mining Methods:** open pit/quarry mining

**Acres to be Disturbed:** 18

**Present Land Use:** mining

**Postmining Land Use:** domestic livestock and wildlife habitat

**Variances from Reclamation Standards (Rule R647) Granted:** R647-4-111.12 Topsoil  
Redistribution

### Soils and Geology:

**Soil Description:** Shallow layers of Chipeta and Persayo soils (poorly developed soils) over  
mainly Mancos shale and eroding shale outcrop.

**pH:** unknown

**Special Handling Problems:** Because of previous mining disturbance little topsoil material will  
be available for reclamation.

**Geology Description:** The mine is located at the transition zone between Dakota Sandstone  
and the Blue Gate Member of the Mancos Shale

**Hydrology:**

**Ground Water Description:** The ground water table is predicted to be at or near the elevation of the Price River. The excavated pits will not be dug to deep enough to intercept the groundwater.

**Surface Water Description:** No intermittent or perennial streams are located on the site. However, the Price River does flow adjacent to and within 5 feet of the mine site area. An ephemeral drainage does cross the site. The operator plans to rechannel this drainage to allow room onsite for an ore stockpile. Rechannalization should not adversely effect this drainage.

**Water Monitoring Plan:** none

**Ecology:**

**Vegetation Type(s); Dominant Species:** shadescale, rabbitbrush, saltbrush, indian ricegrass

**Percent Surrounding Vegetative Cover:** 20%

**Wildlife Concerns:** none

**Surface Facilities:** Portable onsite crushing and screening facility

**Mining and Reclamation Plan Summary:** . . . .

**During Operations:**

ECDC will mine a shallow open pit for bentonite clay. The clay will be excavated using D-9 dozers and 988 loader. It will then be crushed and screened, then hauled approximately 18 miles along existing county and state roads to the ECDC landfill near East Carbon, for use as liner material for the ECDC landfill. The operator plans to excavate approximately 130,000 cubic yards of clay in a period of 90 days. Intermittent mining may continue on an as-needed basis following the initial 90 day development/extractive phase.

**After Operations:**

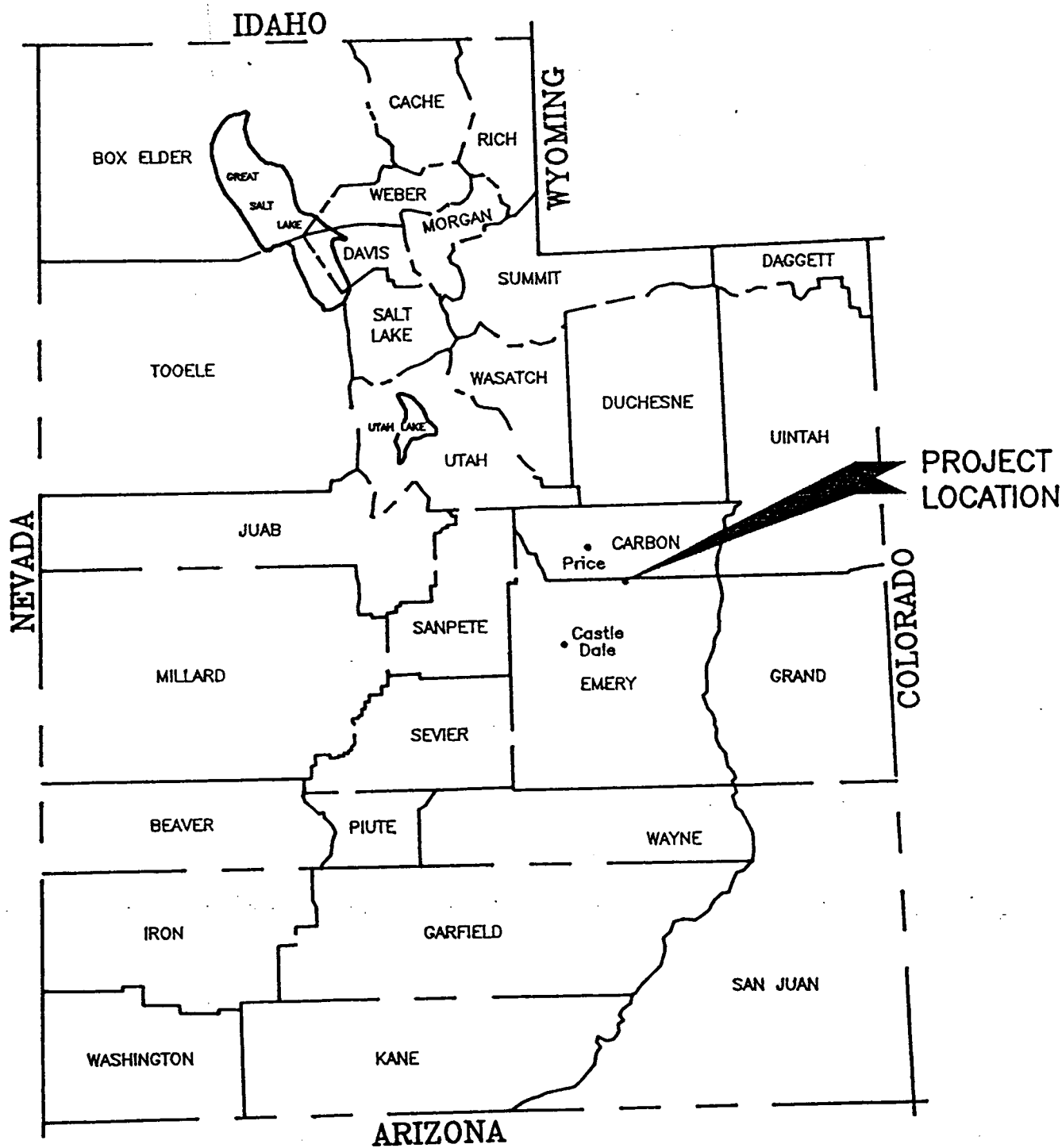
ECDC will backfill and regrade quarried areas to slopes no steeper than 2h:1v. Roads and pads will be ripped and regraded where appropriate. All reclaimed areas will be mulched, fertilized and reseeded with an approved seed mixture. All structures and equipment will be removed from the site. Portions of the access road leading into the site will be left for post-mine landuse.

Page 3  
Executive Summary  
Blank Form

**Surety:**

**Amount:** \$20,600 (1998 dollars)  
**Form:** Surety Bond  
**Renewable Term:** 5 years

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4:ECDC



**ECDC**  
ENVIRONMENTAL

**CLAY  
MINE  
SITE**

LOCATION MAP

**CREAMER & NOBLE  
ENGINEERS**  
ST. GEORGE, UTAH

EXHIBIT NO.:

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# RECLAMATION ESTIMATE

East Carbon Development Company(ECDC)

file M15-62.WQ1

ECDC Clay Mine

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Emery County

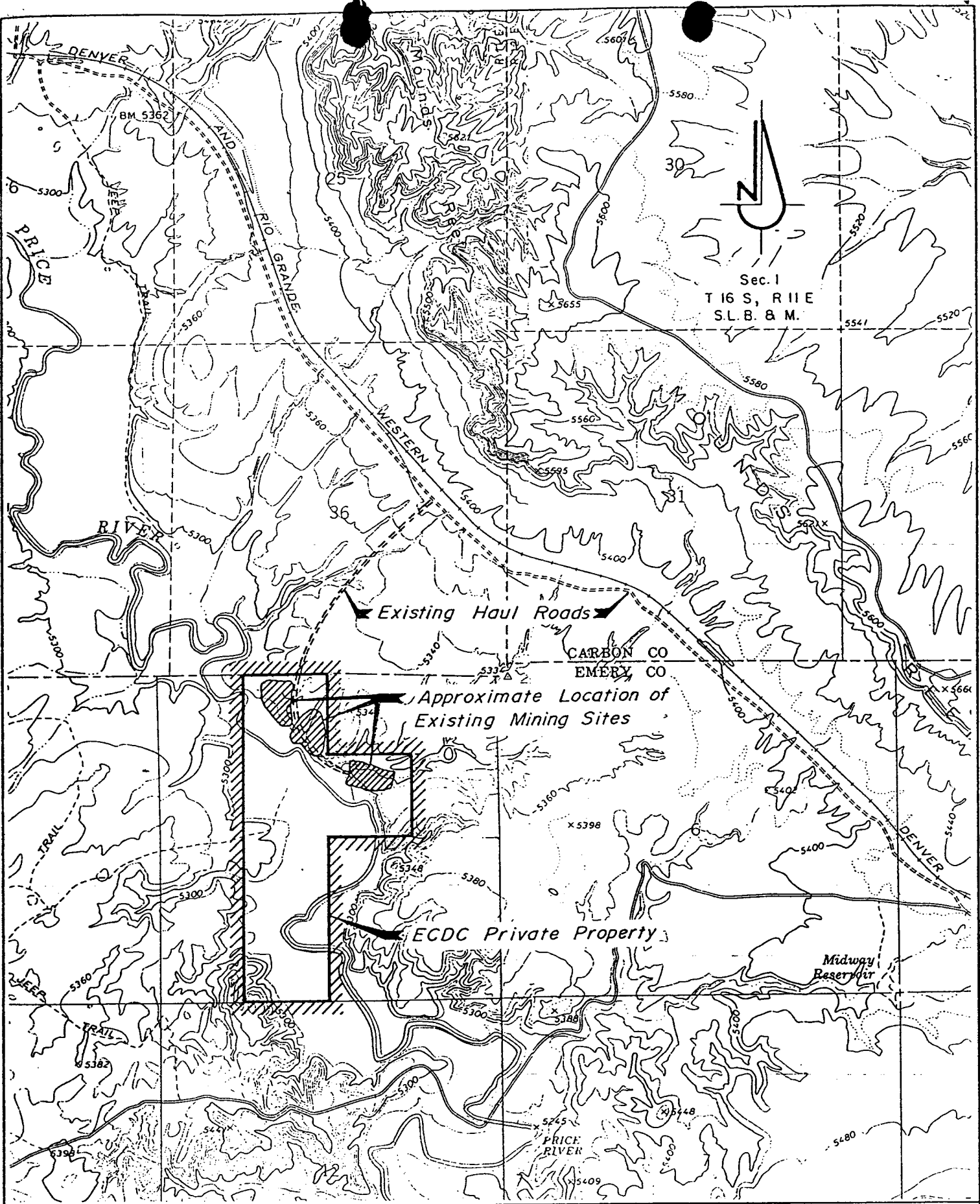
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**ECDC**  
ENVIRONMENTAL

**CLAY  
MINE  
SITE**

VICINITY MAP

**CREAMER & NOBLE  
ENGINEERS**  
ST. GEORGE, UTAH

EXHIBIT NO.:

II